INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L23/552 H01L23/367

According to International Patent Classification (IPC) or to both national classification and IPC

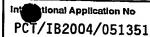
B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{H01L} \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

	data base consulted during the International search (name of da	ia dase and, where practical, search terms use	d) ,
.PU-11	ternal, WPI Data		
- DOCUM	ENTS CONSIDERED TO BE RELEVANT	•	
Category °	Citation of document, with indication, where appropriate, of ti	na ralavant naceagae	Relevant to claim No.
Calogory	Chadon of document, with indication, where appropriate, or the	ie reievant passages	Helevant to Gaint No.
X	US 5 977 626 A (LEE RONG-SHEN 2 November 1999 (1999-11-02)	ET AL)	1-3, 5-10, 12-16
	column 1, lines 10-35 column 2, lines 10-46 column 2, line 65 - column 4,	line 30;	
Y	figures 2-6 column 5, lines 4-15		4,11
Y	US 6 229 702 B1 (CHAO SHIN-HUA 8 May 2001 (2001-05-08)	ET AL)	4,11
X	column 2, line 65 - column 3, figures 1-3	line 62;	1,3-5,8, 10,11
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X Furt	her documents are listed in the continuation of box C.	Patent family members are listed	In annex.
Special ca	ategories of cited documents :	"T" later document published after the int or priority date and not in conflict wit	ernational filing date
'A' docum consid	ent defining the general state of the art which is not dered to be of particular relevance	or phonty date and not in conflict wit cited to understand the principle or the invention	neory underlying the
	document but published on or after the international	"X" document of particular relevance; the cannot be considered novel or cannot	claimed invention
'L' docume	ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another	involve an inventive step when the d	ocument is taken alone
citatio	n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or	"Y" document of particular relevance; the cannot be considered to involve an independ with one or many than the control of the	oventive step when the
other	means	document is combined with one or ments, such combination being obvious in the art.	
latert	ent published prior to the international filing date but han the priority date claimed	*&* document member of the same paten	t family
Date of the	actual completion of the international search	Date of mailing of the international se	arch report
1	7 December 2004	28/12/2004	
Name and	malling address of the ISA European Patent Office, P.B. 5818 Patentlaan 2	Authorized officer	
	NL – 2280 HV Rijswijk		

INTERNATIONAL SEARCH REPORT



C.(Continu	(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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X	US 2003/089983 A1 (KO ERIC ET AL) 15 May 2003 (2003-05-15) paragraphs '0003!, '0004!, '0009!,	1-3, 5-10, 12-16	
	'0011! - '0013! paragraphs '0023! - '0027!; figure 1 paragraph '0030!: figure 3C		
Υ	paragraphs '0033! - '0035!; figures 3E,3F paragraphs '0037!, '0038!; figure 4	4,11	
X	US 5 166 772 A (SOLDNER KEITH D ET AL) 24 November 1992 (1992-11-24) column 1, line 34 - column 2, line 11 column 2, line 60 - column 4, line 33; figures 1-3	1-3,5, 8-10,12	
X	EP 0 435 530 A (GEN ELECTRIC) 3 July 1991 (1991-07-03) page 5, lines 6-41 column 2, line 60 - column 4, line 33; figures 1,2 page 6, line 20 - page 7, line 21; figure 2a page 8, line 9 - page 9, line 26; figures 6,7	1-5,8-11	
Ρ,Χ	EP 1 347 513 A (BROADCOM CORP) 24 September 2003 (2003-09-24) paragraphs '0003! - '0025! paragraphs '0117! - '0126!, '0135! - '0143! paragraphs '0144! - '0165!; figures 7A-7F paragraphs '0166! - '0171!; figures 8A-8D paragraphs '0172! - '0175!; figure 9A paragraphs '0180! - '0185!; figures 11A-11C paragraphs '0189! - '0193!; figure 13E paragraphs '0195! - '0198!; figure 15A paragraphs '0205! - '0220!	1-16	
A	US 5 309 321 A (OLLA MICHAEL A ET AL) 3 May 1994 (1994-05-03)	1-16	
A	column 2, line 26 - column 3, line 48; figures 1,2,4	9	
A	US 4 814 943 A (OKUAKI HIROSHI) 21 March 1989 (1989-03-21) column 4, lines 10-33; figures 6,7	4,9,11	